

REMARKS

Applicants submit this Amendment After Final in response to the final Office Action mailed January 29, 2007. Before this response, claims 1-7, 9-20, 22-30, 32-43, and 45-58 are pending, of which claims 1, 24, and 56 are independent. By this response, Applicants have canceled claims 2 and 25 without prejudice or disclaimer. Applicants have also amended claims 1, 7, 14, 24, 37, and 56 and FIGS. 1 and 2 in the specification. Accordingly, claims 1, 3-7, 9-20, 22-24, 26-30, 32-43, and 45-58 are currently pending, of which claims 1, 24, and 56 are independent.

In the final Office Action, the Examiner objected to the drawings as allegedly failing to show every feature of the claimed invention. The Examiner provisionally rejected claims 1, 24, and 56 on the ground of non-statutory obviousness-type double patenting as being unpatentable over co-pending U.S. Patent Application Ser. No. 10/721,898. The Examiner rejected claims 1-7, 9-20, 22-30, 32-43, and 45-58 under 35 U.S.C. § 112, ¶ 1 for allegedly failing to comply with the written description requirement and further rejected these claims under 35 U.S.C. § 112, ¶ 2 as allegedly omitting essential elements. Finally, the Examiner rejected claims 1-5, 22-28, 45, 46, and 56-58 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2002/0133507 to Holenstein et al. ("Holenstein").

Applicants respectfully traverse all pending objections and rejections and request reconsideration of the application, as amended. Applicants note that the Examiner did not reject claims 6, 7, 9-20, 29, 30, 32-43, and 47-55 over prior art. Accordingly, Applicants understand that these claims would be allowable if the pending drawing objection and 35 U.S.C. § 112 rejections are overcome.

Drawing Objections

The Examiner has objected to the drawings because they allegedly do not show the claimed "first data field," "second data field," and "third data field." Final Office Action, ¶ 4. In more detail, the Examiner explained that "the drawings do not specifically illustrate the boundaries or structure of the fields (i.e. first data field, second data field, and third data field). The examiner requests that the specific structure of a field be shown and labeled for clarity." Final Office Action, ¶ 21.

Applicants have amended FIGS. 1 and 2 to specifically illustrate the boundaries of the first, second, and third data fields, which respectively store an "ID" value, a state value (e.g., state I, II, or III), and a default indicator (e.g., yes or no). For instance, the first, second, and third data fields are respectively labeled "ID," "state," and "default?" in amended tables 106 and 200 of FIGS. 1 and 2. Because the drawings, as presently amended, clearly set forth structural boundaries for the first, second, and third data fields, as required by the Examiner, Applicants respectfully submit that the pending drawing objections should be removed.

Double Patenting Rejections

Claims 1, 24, and 56 were provisionally rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1, 5, and 9 of co-pending U.S. Patent Application Ser. No. 10/721,898. See Final Office Action, ¶ 7. In response, Applicants submit the enclosed Terminal Disclaimer, thereby obviating these provisional double-patenting rejections.

35 U.S.C. § 112, ¶ 1 Rejections

The Examiner rejected claims 1-7, 9-20, 22-30, 32-43, and 45-58 under 35 U.S.C. § 112, ¶ 1 as allegedly failing to comply with the written description requirement because “[t]he limitation ‘creating an electronic document’ does not appear to be described properly.”¹ While Applicants do not agree with the basis of this rejection (e.g., for at least the reasons discussed in their last response), Applicants have amended the independent claims for purposes of advancing prosecution of this application. Specifically, Applicants have amended the independent claims to recite, for example, “~~creating~~ providing an electronic data element...”

The Examiner does not refute the existence of the claimed electronic data element, but instead argues that “[t]here does not appear to be any type of creation of a structure [in Applicants’ specification], but rather manipulation of values (i.e. state parameters) for corresponding identifiers.” Final Office Action, ¶ 9. Accordingly, the Examiner apparently agrees that the specification provides for an electronic data element (e.g., as shown in FIGS. 1, 2, and 7), but the Examiner maintains that the specification does not appear to disclose *creation* of that data element.²

Regardless of the accuracy of the Examiner’s characterization of the Applicants’ specification (which Applicants continue to disagree with), Applicants respectfully submit

¹ It appears that the Examiner mistakenly based the pending 35 U.S.C. § 112, ¶ 1 rejections on a non-existent claim recitation of “creating an electronic document.” However, for purposes of this response, Applicants assume that the Examiner meant to reference the pending claim recitation of “creating an electronic data element,” e.g., as recited in independent claim 1.

² The Office Action contains a number of statements reflecting characterizations of the specification, claims, and related art. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization made by the Examiner in the Office Action.

that the pending claims no longer recite "creating an electronic data element," thereby obviating the pending 35 U.S.C. § 112, ¶ 1 rejections.

35 U.S.C. § 112, ¶ 2 Rejections

The Examiner rejected claims 1-7, 9-20, 22-30, 32-43, and 45-58 under 35 U.S.C. § 112, ¶ 2 as being incomplete for allegedly omitting essential elements of the invention, namely, an "exclusive lock and blocking for replication." Final Office Action, ¶ 11. Applicants respectfully submit that these elements are not essential for the claimed invention as the Examiner incorrectly suggests. For at least this reason, the pending 35 U.S.C. § 112, ¶ 2 rejections were formed on an improper basis and should be removed.³

First, Applicants point out that "essential" subject matter in an invention includes those elements that are described by the Applicants as "necessary to practice the invention." M.P.E.P. § 2172.01. Additionally, M.P.E.P. § 2164.08(c) further explains:

[A]n enablement rejection based on the grounds that a disclosed critical limitation is missing from a claim should be made only when the language of the specification makes it clear that the limitation is critical for the invention to function as intended. Broad language in the disclosure, including the abstract, omitting an allegedly critical feature, tends to rebut the argument of criticality.

(emphasis added) M.P.E.P. § 2164.08(c).

Applicants respectfully submit that the present specification discloses multiple embodiments of the invention, some embodiments employing an exclusive lock and/or

³ Applicants note that the pending 35 U.S.C. § 112, ¶ 2 rejections were likely intended to be rejections under 35 U.S.C. § 112, ¶ 1. Specifically, M.P.E.P. §§ 2172.01 and 2164.08(c) indicate that claims lacking an essential (or "critical") feature should be rejected under 35 U.S.C. § 112, ¶ 1 as not enabling. Regardless of which paragraph of Section 112 is relied on by the Examiner, Applicants traverse these rejections for at least the reasons above.

replication blocking and others that do not. Accordingly, the exclusive lock and/or blocking mechanism described in the specification cannot reasonably be construed as “essential” or “critical” for practicing the invention as the Examiner contends.

For example, ¶¶ [041] and [047] through [064] in the Applicants’ specification describe at least 17 different embodiments of the invention, some employing an exclusive lock and/or blocking and some that do not. Furthermore, the Applicants’ specification describes exclusive locks and blocking techniques merely as possible implementations, not as mandatory elements of the invention. See, e.g., specification, ¶ [031] (“One or more of the following operations *may* be allowed to be performed on the electronic data element:...blocking or deblocking a change of state; setting/deleting a lock (see below), particularly a shared lock” (emphasis added)); ¶ [068] (“This check may be performed by querying table 106 or, *alternatively*, by trying to set an exclusive lock on one or more of the IDs contained in the central lock table 106” (emphasis added)); ¶ [060] (“A still further embodiment *may* implement the checking stage by trying to set an exclusive lock on the electronic data element” (emphasis added)).

In summary, given that Applicants’ specification discloses embodiments in which exclusive locks and blocks are not required for practicing the invention, Applicants submit that the 35 U.S.C. § 112, ¶ 2 rejections are improper and should be removed.

35 U.S.C. § 102(e) Rejections

Applicants respectfully traverse the rejections of independent claim 1 under 35 U.S.C. § 102(e) as being anticipated by Holenstein. In order to properly establish an anticipation rejection under 35 U.S.C. § 102(e), every element of the claims at issue must be found in the applied reference, either expressly or under principles of

inherency. Furthermore, “[t]he identical invention must be shown in as complete detail as is contained in the ... claim.” See M.P.E.P. § 2131, quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). In this case, Holenstein fails to disclose every element of the Applicants’ claimed invention.

Applicants’ representative independent claim 1, as amended, calls for a combination including, for example, “providing an electronic data element comprising a first data field and a second data field, wherein the first data field contains data representing an identifier assignable to the one or more data objects and the second data field contains data representing a state of the identifier, the second data field configured to store one of: a) a first state, in which said electronic data element may be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects, b) a second state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects by one or more data object processing operations having already accessed said identifier at a time when said identifier was in the first state, or c) a third state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is not assignable to one or more data objects.” Applicants respectfully submit that Holenstein fails to teach or suggest at least the above-noted first, second, and third states recited in Applicants’ amended claim 1. Accordingly, Holenstein cannot legally anticipate or render obvious Applicants’ claim 1.

Holenstein teaches “collision avoidance in database replication systems.” Holenstein, Title. To that end, “[t]okens are used to prepare a target database for

replication from a source database and to confirm the preparation.” Holenstein,

¶ [0012]. In operation, the database replication process in Holenstein exchanges

ready-to-commit (“RTC”) tokens and monitors the token exchange using an RTC table:

FIG. 3 shows one preferred embodiment of an RTC table, here, RTC table A. The RTC table A contains indicia of transactions initiated at node A that are ready to be committed but that are not yet committed. The transactions in the ready to commit stage are paused. The RTC table A assigns and outputs a ready to commit token (hereafter, RTC token) to the audit trail A for each transaction in the table that represents a transaction initiated at node A and which is currently in the paused state. These tokens are then sent by the collector A to the other nodes in the system (here, only node B in this two node embodiment). When tokens initiated at node A are successfully returned (selectively ping-ponged) to node A, the respective transactions are completed (i.e., committed), and the respective entries in the ready to commit table are deleted. In one suitable scheme, the entries may have a flag which is initially given a first value that indicates a ready to commit state for the transaction, and is subsequently given a second value upon return of the respective token and completion of the commit operation that indicates a committed state for the transaction. The entry may then be deleted when the flag is given the second value.

(emphasis added) Holenstein, ¶ [0102]. As discussed in ¶ [0102] and shown in FIG. 3, the RTC table comprises a first data field for storing a transaction ID value (“TRAN ID”) of the database replication process and further comprises a second data field for storing a two-state flag value (“FLAG”) indicative of the state of the transaction ID—i.e., a “ready to commit” state or a “committed” state. See Holenstein, ¶ [0102]; FIG. 3.

Applicants respectfully submit that, even assuming for the sake of argument that the transaction ID in Holenstein can be properly equated with Applicants’ claimed “identifier” (which Applicants do not believe), Holenstein still cannot properly anticipate or render obvious Applicants’ amended claim 1 because of its complete absence of at least a first state, a second state, and a third state, as presently claimed. More

specifically, Holenstein teaches a two-state flag value representing the state of the transaction ID, which is either in a “ready to commit” state or a “committed” state. See Holenstein, ¶ [0102]. In sharp contrast, Applicants’ claim 1 instead recites, for example, three different identifier states: “the second data field contains data representing a state of the identifier, the second data field configured to store one of: a) a first state... b) a second state.... or c) a third state...” As such, the two-state replication process using RTC tokens taught in Holenstein is fundamentally different than the three-state replication process recited in Applicants’ claim 1. Holenstein does not appear to hint or suggest at using an additional third state for the disclosed transaction ID, let alone in the manner recited in Applicants’ amended claim 1. Indeed, such an added state would be unnecessary in the RTC token exchange expressly taught in Holenstein. See, e.g., Holenstein, ¶ [0102]

For at least this reason, independent claim 1, as presently amended, is allowable over the art of record. Independent claims 24 and 56, although different in scope, recite language similar to amended independent claim 1 and are thus also allowable for at least the same reasons. Claims 3-7, 9-20, 22, 23, 26-30, 32-43, 45-55, 57, and 58 depend on allowable independent claims 1, 24, and 56, and are therefore allowable for at least the same reasons.

Conclusion

The preceding remarks are based only on the arguments in the Office Action, and therefore do not address patentable aspects of the invention that were not addressed by the Examiner in the Office Action. The claims may include other elements that are not shown, taught, or suggested by the cited art. Accordingly, the

preceding remarks in favor of patentability are advanced without prejudice to other bases of patentability.

In view of the foregoing remarks, Applicants submit that this claimed invention, as amended, is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicants therefore request the entry of this Amendment, the Examiner's reconsideration and reexamination of the application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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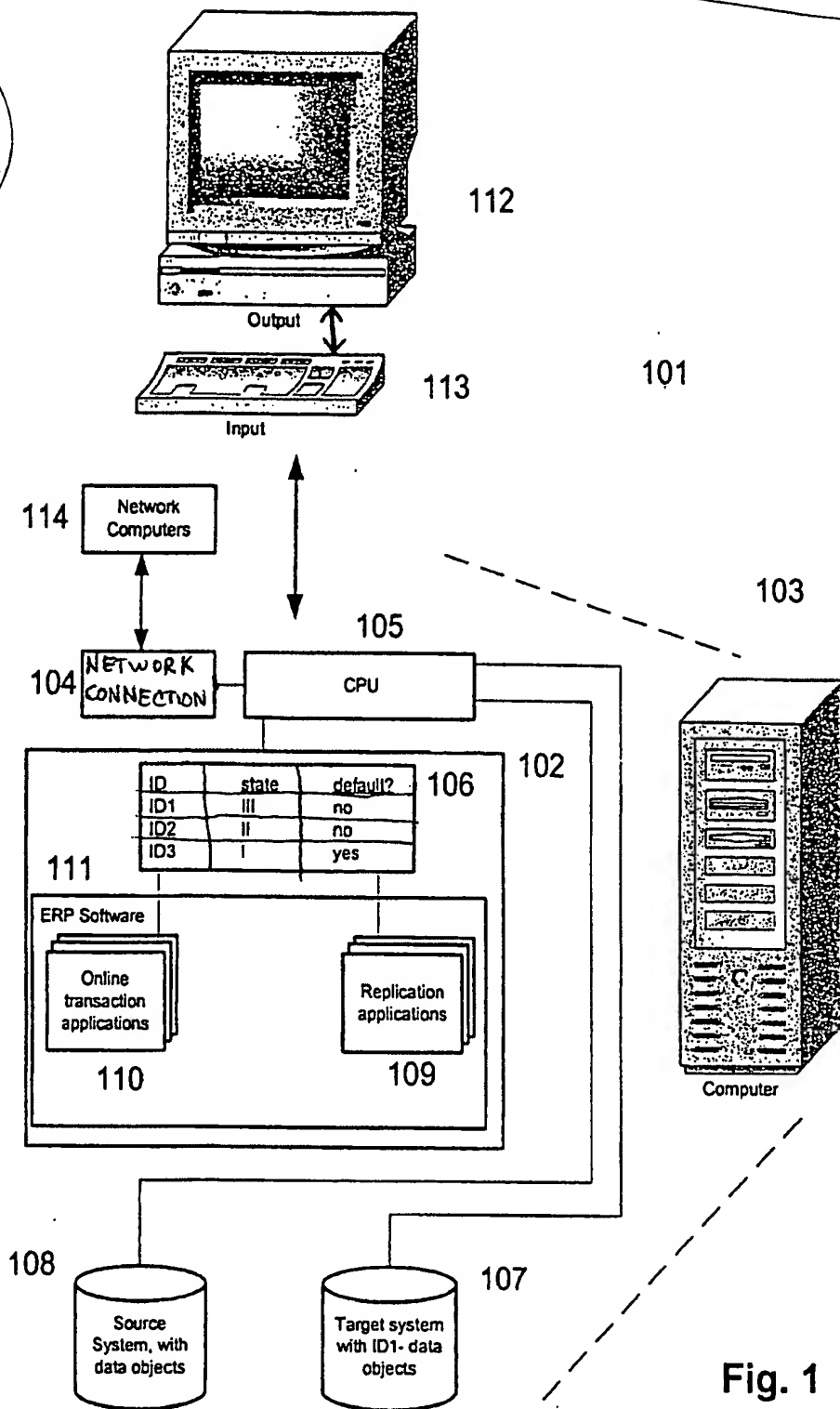


Fig. 1

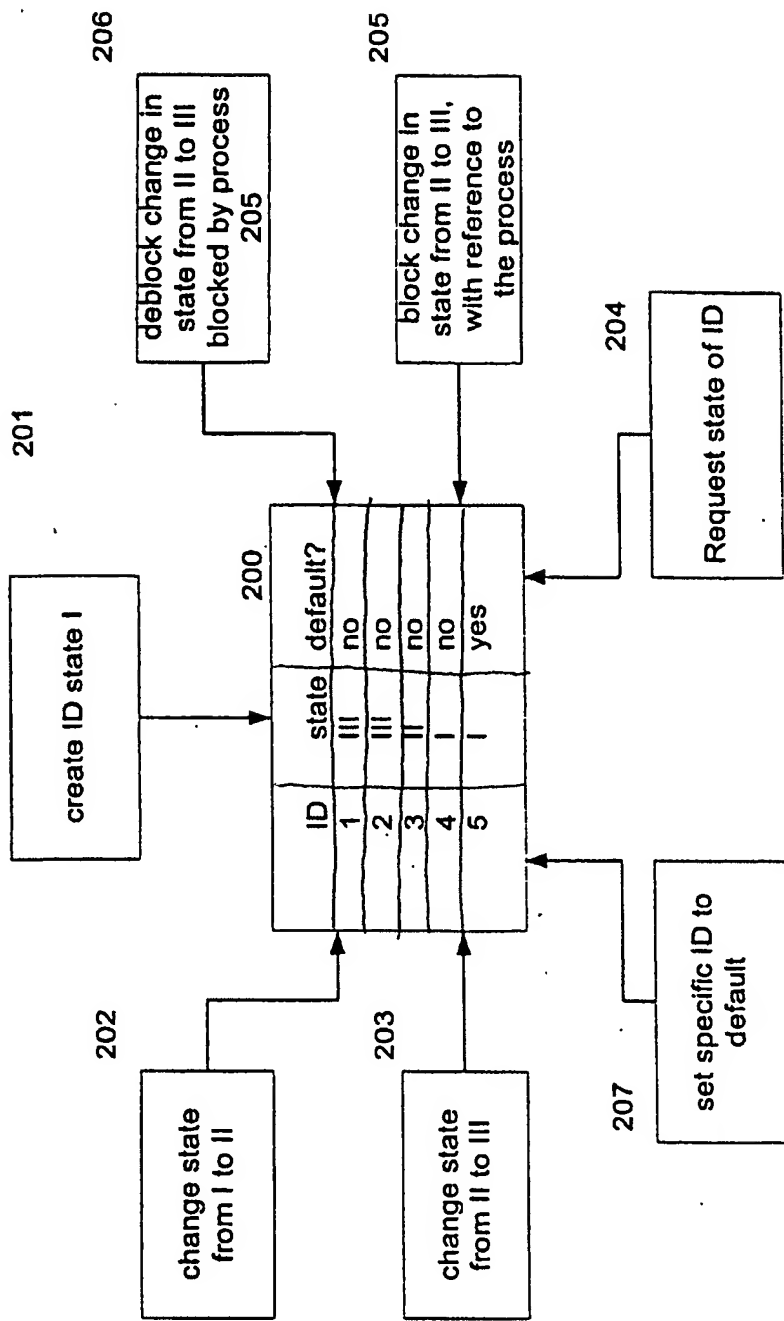


Fig. 2